

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RYOKI HONJO

Appeal No. 96-3230
Application 08/275,363¹

ON BRIEF

MAILED

NOV 25 1996

PAT.&T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before COHEN, McQUADE and FLEMING, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed July 15, 1994.

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This appeal is from the final rejection of claims 1 through 8, all of the claims pending in the application.

The invention pertains to "an apparatus for detecting abnormality of a tension sensor of a magnetic recording apparatus" (specification, page 1). Claim 1 is illustrative and reads as follows:

1. An apparatus for detecting abnormality of a tape-tension detecting means for a magnetic recording apparatus comprising:

a tape-tension detecting means for detecting tension of a tape loaded on a predetermined tape traveling path from a supply-side reel to a takeup-side reel;

a supply-side-reel servo driving means for performing a servo-drive by controlling rotation of said supply-side reel on the basis of a detected value of tape tension detected by said tape-tension detecting means to thereby apply a tape tension in accordance with a tape traveling mode;

a supply-side-reel open-loop driving means for driving said supply-side reel in an open-loop fashion while cutting off servo drive performed by said supply-side-reel servo driving means;

a target-tension setting means for setting a target tension in the open loop made by said supply-side-reel open-loop driving means; and

means for detecting abnormality of said tape-tension detecting means which compares said target tension set by said target-tension setting means and tape tension detected by said tape-tension detection means and detects abnormality of said tape-tension detecting means.

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The reference relied upon by the examiner as evidence of anticipation is:

Yanagihara et al. (Yanagihara) 5,039,027 Aug. 13, 1991

Claims 1 through 8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Yanagihara.

Yanagihara discloses a magnetic tape recording apparatus wherein the moments of inertia of the tape supply and take-up reels are taken into account in controlling the tension of the tape. As described in this reference,

a magnetic tape 3 is wound around a supply reel 1, and the tape is moved by a capstan 6 toward a take-up reel 2.

A tension arm 4 detects the tension applied to the magnetic tape 3 between the supply reel 1 and the capstan 6. A tension arm 5 detects the tension applied to the magnetic tape between the take-up reel 2 and the capstan 6. The roller 7, which detects the tape speed, is mounted in such a manner that the roller 7 rotates while keeping in contact with the tape 3. Reel motors 8 and 9 drive the reels 1 and 2. Encoders 10 and 11 output pulses according to the amount of rotation of the reels. Potentiometers 12 and 13 output voltages according to their pivoting angles that vary with the change in tension of the tension arms 4 and 5. The tension arms and the potentiometers constitute a tension detector. A capstan motor 14 drives the capstan 6. An encoder 15 outputs pulses at a frequency proportional to the rotating speed of the capstan 6. A

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motor driver 16 supplies a drive current to the motor 14 in response to a capstan motor current command output by a controller 23. An encoder 18 outputs pulses according to the amount of rotation of the roller 7. Motor drivers 20 and 21 supply drive current to the motors 8 and 9 in response to current commands for the respective reel motors output by controller 22.

. . . .

The controller 22 is an ordinary microprocessor which includes a CPU 221, a memory 222, a counter 223 and an I/O interface 224 having D/A and A/D converters [column 3, lines 16 through 63].

In use, the capstan 6 is controlled to feed the magnetic tape 3 at a constant desired speed between the supply reel 1 and the take-up reel 2, and the supply and take-up reels are controlled to maintain a desired tape tension as measured by the tension arms 4 and 5. In recognition of the fact that the moments of inertia of the supply and take-up reels affect the control of the tape tension,

a moment of inertia is calculated for each reel, and according to the calculated moments of inertia, the gain of the tape tension control system is adjusted. Also, the currents supplied to the motors for the respective reels are corrected accordingly [column 5, lines 16 through 21].

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tension detector which compares the target tension and tape tension detected by the tape-tension detector.

According to the examiner, the recitations in claims 1 and 5 relating to the supply-side reel open-loop driving means/driver, the target-tension setting means/setter, and the means for detecting abnormality/abnormality detector are met, respectively, by Yanagihara's supply reel motor driver 20, memory 222, and CPU 221 (see pages 2 and 3 in the answer, Paper No. 11). It is simply not evident, however, how the claim limitations in question can possibly be read on the foregoing components of Yanagihara's closed loop tension control system. In this regard, the examiner's finding that the subject matter recited in independent claims 1 and 5 is anticipated by Yanagihara appears to be predicated on a manifestly unreasonable interpretation of the appellant's claims and Yanagihara's disclosure. Accordingly, we shall not sustain the standing 35 U.S.C. § 102(b) rejection of claims 1 and 5, or of claims 2 through 4 and 6 through 8 which depend therefrom, as being anticipated by Yanagihara.

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The decision of the examiner is reversed.

REVERSED

IRWIN CHARLES COHEN
Administrative Patent Judge

JOHN P. McQUADE
Administrative Patent Judge

BOARD OF PATENT

APPEALS AND

INTERFERENCES

MICHAEL R. FLEMING
Administrative Patent Judge

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